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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

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Advanced Television Systems)
and Their Impact Upon the)
Existing Television Broadcast)
Service)

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MM Docket No. 87-268

COMMENTS OF THE BUSINESS SOFTWARE ALLIANCE

The Business Software Alliance ("BSA"), by its undersigned counsel, and pursuant to Section 1.415 of the Federal Communications Commission's ("FCC" or "Commission") Rules, hereby submits the following comments in response to the Fifth Further Notice of Proposed Rulemaking ("*Fifth NPRM*"), in the above-captioned proceeding.¹ As set forth below, BSA strongly urges the Commission not to increase costs to consumers, foreclose innovation, impede competition, and interfere with the development of cross-platform personal computer-television ("PC-TV") products by adopting and mandating the Advisory Committee on Advanced Television Service's ("ACATS") Advanced Television Systems Committee Digital Television Standard ("ATSC DTV Standard") for use in digital television ("DTV") broadcasts. Specifically, BSA maintains that those parties proposing the compulsory imposition of the ATSC DTV Standard have failed to demonstrate that such standard is in the public interest. The ATSC DTV Standard would impede compatibility and the flow of digitally formatted information between DTV and computer

¹ *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Fifth Further Notice of Proposed Rule Making, MM Docket No. 87-268 (rel. May 20, 1996) ("*Fifth NPRM*").

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hardware and software, thereby increasing costs to consumers. BSA maintains that the burden of persuasion remains upon those parties seeking the imposition of mandatory standards, and not upon parties who raise legitimate concerns about the impact such a standard will have upon consumers, innovation and U.S. industries. Indeed, only in those limited instances where the need for government-mandated standards is clearly in the public interest, and only where the industry has failed to respond to the marketplace in developing appropriate standards, should the Commission impose standards. Even in these limited circumstances, such standards should be as narrowly drawn as possible, and should not discriminate nor advantage or disadvantage any particular technology, so as to avoid discouraging innovation and increasing consumer costs. Accordingly, the FCC should reject the imposition of the ATSC DTV Standard upon consumers, broadcasters, software publishers, and computer and television manufacturers. Instead, the FCC should allow the marketplace to drive the development of appropriate standards thereby enabling continued innovation when consumers -- and not the slow hand of government -- see fit.

I. STATEMENT OF INTEREST

BSA promotes the continued growth of the software industry through its international, public policy, education and enforcement programs in more than 60 countries throughout North America, Europe, Asia and Latin America. BSA's members include the leading U.S. innovators and publishers of computer software. BSA's members have contributed substantially to the stunning growth and success of the U.S. software industry and the economic contribution software has made to the expansion of the American economy as a whole. BSA's members have a critical interest in ensuring: (1) the continued growth of the U.S. software industry; (2) the growth

and development of the National Information Infrastructure (“NII”); (3) that government does not act in a manner that would inadvertently interfere with this growth; and, more specifically, (4) that software publishers and developers -- as well as the millions of business and residential computer software users -- are able to take advantage of the capabilities of DTV when using, marketing and developing software products. Accordingly, BSA and its members have a substantial interest in the outcome of this proceeding.

II. DISCUSSION

A. The Burden of Persuasion Rests Squarely Upon the Proponents of Compulsory DTV Standards

As an initial matter, BSA finds that the Commission has placed an inappropriate burden upon parties opposing the adoption of the ACATS DTV Standard. Specifically, the Commission requires that “those opposing [the Commission’s] mandate of the ATSC DTV Standard should have the burden of persuasion as to why that standard should not be [required by the FCC],” because the Standard was arrived at over a number of years.² While BSA recognizes the importance of some minimal standards, and that industry standards will no doubt arise to foster the success of DTV, the length of time in developing the ATSC DTV Standard should bear no relevance upon the decision of government to *impose* -- as a matter of law -- this flawed standard upon consumers and industry alike. Before adopting any rule, and certainly before requiring consumers to spend as much as \$91 billion for ACATS-capable receiving equipment, the proponents of such standards -- and not the opponents -- must bear the heavy burden of demonstrating that the imposition of compulsory rules

² *Fifth NPRM* at ¶54.

is clearly in the public interest.³ Furthermore, the FCC cannot rely upon the assertions of ACATS alone that this proposal is in the public interest, but rather, the Commission must weigh policy alternatives, consider costs to consumers, and exercise its own independent judgement in reaching a final decision regarding DTV.

With respect to DTV, and as outlined below, the proponents of the compulsory standard have failed to demonstrate that the imposition of any standard by government -- let alone the specific ATSC DTV Standard -- is in the public interest. Further, should the FCC move forward with adoption of the ATSC DTV Standard, the FCC runs the risk of abdicating its fiduciary responsibility to the public in favor of those business interests advocating the adoption of the proposed standard.

B. The ACATS DTV Standard is Not in the Public Interest

As outlined in its earlier comments in this proceeding, BSA again expresses its concern that the current ATSC DTV Standard has the potential to impede the transition to digital technologies and that the adoption of this standard could, for consumers, increase the cost of equipment and undermine the full utilization of digital broadcast technology.⁴ Specifically, the ATSC DTV

³ Calculations performed by Dr. Lee Selwyn indicate that seven years after the transition to digital television begins, consumers could spend as much as \$91 billion for ACATS equipment. The enormous costs associated with compulsory imposition of the ACATS standard will disproportionately burden those with lower incomes and could place DTV outside the reach of many consumers. *See* Dr. Lee Selwyn, *Economic Considerations in the Evaluation of Alternative Advanced Television Proposals*. ACATS decoders will cost an estimated \$1,275 each in 1996. Other proposed formats could reduce the cost of those decoders, for example, to around \$425. *See* Steven Gabriel, *Cost Comparison of ACATS and CICATS Set-top Converters, Receivers, and PC Decoders* (July 11, 1996). Before making any decision on DTV standards, the Commission should ensure that it has an accurate understanding and analysis of the costs imposed upon consumers under each policy alternative.

⁴ *See* Reply Comments of Business Software Alliance, MM Docket No. 87-268 (filed January 23, 1996).

Standard comprises five components: video coding, audio coding, packetized data transport, RF transmission, and a menu of video formats. BSA is particularly concerned that by requiring equipment to be capable of receiving 18 separate video formats, equipment costs will be dramatically increased and will place the technology out of the reach of many consumers. Furthermore, because of incompatibilities between the ATSC DTV video format and existing computer video formats, cross-platform PC-TV hardware and software applications may be made unavailable, thereby impeding widespread consumer access to the NII.

If DTV is to become an element of the NII, the Commission has a unique obligation to consumers to ensure that it does not interfere with the growth and prosperity of other media and technologies -- particularly computer hardware and software. By ensuring that DTV standards do not interfere with PC-TV compatibility, the FCC can foster consumer access to the NII through the development of new PC-TV applications that integrate both the functions of computers and television. Furthermore, by ensuring DTV does not interfere with computer-television compatibility, and by permitting digitally encoded information to flow with equal ease to either DTVs or computing devices, the Commission will further advance the fundamental goal of the Telecommunications Act of 1996 by providing "for a pro-competitive, de-regulatory national policy . . . designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans."⁵

At present, however, the ATSC DTV Standard remains incompatible with personal computer applications. In particular, BSA echoes the concerns of a number of other parties that

⁵ Conference Report on S. 652, Telecommunications Act of 1996, H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. 1. (1996).

the ATSC DTV Standard's use of interlaced scanning formats, a 60 Hz transmission rate, non-standard aspect ratios, and non-square pixel spacing create serious compatibility concerns.⁶ Approval of a display standard that permits use of the interlaced technology would result in lower quality text and graphics making the product less useful and less appealing to consumers. Government mandate of inferior interlaced technology will not facilitate the adoption of DTV for production of interactive and multimedia applications and would interfere with DTV compatibility with current computer technology that utilizes progressive scanning. Similarly, by requiring that equipment be capable of receiving and decoding 18 separate video formats, a mandated ATSC DTV standard will force consumers to pay excessive prices for DTV equipment. Finally, because of the incompatibility between computers and the proposed DTV standard, consumers may be required to purchase two monitors rather than one convergent device. Overall, BSA believes that adoption of the ATSC DTV standard will impede consumer access to the NII by increasing costs to consumers, and rendering certain PC-TV applications impossible.

C. The Imposition of Government Standards is Generally Inappropriate

While BSA does not object to standards adopted through industry consensus, it is deeply troubled by the prospect that the FCC could develop and apply a set of conditions which the Commission may use to justify the imposition of government-mandated standards instead of allowing consumer demand to determine the appropriate standards. Mandatory standards generally increase consumer costs, decrease consumer choice, foreclose innovation, fossilize technological progress, and -- as is true of the current ATSC DTV Standard -- require the manufacture and use by

⁶ *Fifth NPRM* at ¶ 49.

consumers of equipment that is incompatible or inferior.

The *Fifth NPRM* raises for comment whether to require digital television licensees to use the ATSC DTV Standard.⁷ The Commission notes that the traditional rationale for a government-mandated standard arises when two conditions are met:

First, that there is a substantial public benefit from a standard. Second, private industry either will not, or cannot, produce a standard because the private costs of getting involved in standard setting outweigh the private benefits, or a number of different standards have been developed and private industry cannot agree which should become the standard.⁸

In applying these factors to DTV, the Commission acknowledges that the second factor is likely not an issue because there appears to be sufficient momentum to deploy compatible methods nationwide that would respond to consumer demands.⁹ Similarly, with respect to the first factor, the FCC again acknowledges that requiring government standards may reduce competition and freeze technological innovation.¹⁰ Previously, with new services such as MMDS, PCS, DBS and DARS, the FCC has refused to impose a specific standard. Most recently, the Commission refused to mandate any particular standard for implementation of local telephone number portability.¹¹ Nevertheless,

⁷ *Fifth NPRM* at ¶ 37, 41.

⁸ *Id.* at ¶ 31.

⁹ *Id.*

¹⁰ *Id.* at ¶ 29.

¹¹ See *Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 95-116, RM 8535 (rel. July 2, 1996). The Commission's rationale for refusing to mandate a portability standard is insightful and applicable in the case of DTV. Specifically, with regard to portability, the FCC reasoned that: 1) there appears to be sufficient momentum to deploy compatible methods nationwide; 2) a mandate might actually delay the implementation of number portability; and 3) dictating implementation of a particular method could foreclose the ability of carriers to improve on those methods or implement hybrid (but

the Commission suggests that the imposition of mandatory standards is somehow more appropriate for television because of the pervasive nature of these devices. BSA strongly disagrees. Indeed, the computer software and hardware industries have thrived in the absence of government imposed standards. Computers have become almost as pervasive as televisions and computer hardware and software is just as critical as television -- if not more so -- to the growth of American business and the benefit of the American public. Despite the absence of government intervention, TCP/IP, HTTP, HTML and other standards have been developed through industry consensus and have contributed to the stunning success and growth of computer software, the Internet and Internet-related products. In fact, the imposition of government-mandated standards upon the computer hardware and software industry would be disastrous.¹² DTV standards should be developed in the same fashion as the computer industry develops standards.¹³ Accordingly, the Commission should avoid the substantial consumer costs and detrimental economic and technological effects on U.S. industry

compatible) methods. *Id.* at ¶ 46. Similarly, with DTV, the industry is actively seeking consensus on compatibility, although certain critical issues surrounding video formats need to be resolved. Second, with DTV a government-mandated standard might also delay adoption of DTV when consumers recognize that the new equipment is incompatible with various computer software and hardware applications. Further, as noted above, dictating implementation of a particular technology will clearly foreclose the opportunity for American companies to improve upon existing technology and develop new applications for both existing and as yet unforeseen uses.

¹² For example, had regulators intervened six years ago to establish a standard for semiconductor chips, these regulations would have required the use of the then-best technology, Intel's 286 semiconductor chip. Faster and more powerful chips such as the Pentium, Alpha and the PowerPC would never have been developed. Similarly, substantial inefficiencies and market disruptions would have resulted if innovators were required to seek regulatory permission before they could market these faster and more powerful technologies.

¹³ BSA notes that in the computer industry standards generally: are developed by private bodies with industry input; are voluntary and not mandated; are minimal technically; and do not discriminate against competing products.

associated with the imposition of government-imposed standards. Government standards inappropriately foreclose innovation and impose upon consumers technical standards that could soon be obsolete rather than allowing consumers to dictate their preferences through the dynamics of marketplace demand.

For example, the computer software industry has provided tremendous consumer benefit and become a thriving, innovative, efficient, competitive market without the imposition of government-mandated standards. Free from government intervention and regulatory barriers, the software industry is a shining example of how the industry standards process can work and ensure the growth of a stable yet competitive market where consumers reap the ultimate benefit in terms of low cost, highly innovative products. Indeed, technological advances in software and computing are marked by leapfrogging change where success depends on innovation, improvement, and competitive pricing. Absent regulation and government standards, the U.S. software industry has become a world leader in the development and production of original software products.¹⁴ BSA maintains that the same future awaits DTV if the Commission uses the unregulated software industry as a model. If the Commission imposes upon consumers a single, required, DTV standard, however, the FCC may find consumers are unresponsive to the price, technological capabilities, or features of such units.

In today's marketplace, multiple consumer demands are changing the structure of

¹⁴ From 1987 to 1994, the software industry grew 117 percent in real terms while the remainder of the economy grew only 17 percent. U.S.-developed software dominates world markets. U.S. firms hold 75 percent of the global market for prepackaged software. Further, U.S. software employment has grown at an annual rate of 9.6 percent since 1987. In comparison, jobs in the rest of the economy have increased at only 1.6 percent per year.

telecommunications technology. These changes are moving in one general direction -- connecting one user to another, facilitating access to the NII and enabling users to exchange and share information through rapidly converging devices.¹⁵ Over the past decade, a tremendous number of successful computing and software standards have evolved in the marketplace through an open, voluntary, private sector led standards development process. There is no evidence that a similar result could not be reached here. By allowing the industry standards process to develop standards that respond to consumer demands, rather than imposing upon consumers a costly government-mandated standard, the Commission can ensure that it does not inadvertently increase consumer costs, interfere with access to the NII, or freeze technology and erect unnecessary obstacles to the improvement of DTV technology or its adaptation for yet unforeseen applications.

Finally, only in those limited instances where mandatory government standards are clearly in the public interest, and only where the industry has failed to respond to consumer demand and develop appropriate standards, should the Commission impose standards. Even in these limited circumstances, such standards should be as narrowly drawn as possible and should not discriminate nor advantage or disadvantage any particular technology.

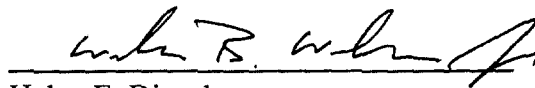
¹⁵ NBC (in conjunction with Microsoft), CNN, and other "broadcasters" have already begun to place their content on the World Wide Web. Any incompatibilities between broadcast and computer equipment standards will serve, however, to impede the development of future cross-platform applications.

III. CONCLUSION

For the foregoing reasons, BSA urges the Commission to resist imposition of a mandatory DTV standard. Instead, BSA suggests that the most appropriate role for the Commission, and the one that would best serve the interests of U.S. consumers, is to allow them to drive the development of products and services that they want. This approach will ensure the adoption of flexible industry standards, reduced consumer costs, increased access to the NII, and continued innovation in the area of DTV technology. However, should it be determined that basic standards are clearly necessary and in the public interest, the Commission must ensure that such standards are very narrowly tailored and do not intrude upon competition or innovation.

Respectfully submitted,

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Dated July 11, 1996

CERTIFICATE OF SERVICE

I, Cathleen D. Sampson, do hereby certify on this 11th day of July, 1996, that a copy of the foregoing Comments of The Business Software Alliance, MM Docket No. 87-268, was served via hand-delivery on the party named below.



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